

Virginia Regulatory Town Hall

Notice of Intended Regulatory Action Agency Background Document

Agency Name:	State Air Pollution Control Board
Regulation Title:	Regulations for the Control and Abatement of Air Pollution
Primary Action:	9 VAC 5-20-206
Secondary Action(s):	None
Action Title:	Hampton Roads VOC Emissions Control Area (Rev. G02)
Date:	September 19, 2002

This information is required prior to the submission to the Registrar of Regulations of a Notice of Intended Regulatory Action (NOIRA) pursuant to the Administrative Process Act § 9-6.14:7.1 (B). Please refer to Executive Order Twenty-Five (98) for more information.

Purpose *

Please describe the subject matter and intent of the planned regulation.

The purpose of the proposed action is to enlarge the scope of the Hampton Roads Emissions Control Area in order to render four previously exempt jurisdictions subject to the VOC emission standards for existing sources. This action is being taken pursuant to Virginia's obligation to implement contingency measures as a result of this area's violation of the 1-hour ozone standard.

Statutory Authority

Please identify the section number and provide a brief statement relating the content of the statutory authority to the specific regulation contemplated.

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare.

Need *

Please provide an explanation of the need for the contemplated regulation and potential consequences that may result in the absence of the regulation. Also set forth the specific reasons the agency has

determined that the proposed regulatory action would be essential to protect the health, safety or welfare of citizens or would be essential for the efficient and economical performance of an important governmental function. Include a discussion of the problems the regulation's provisions are intended to solve.

Among the primary goals of the federal Clean Air Act are the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) and the prevention of significant deterioration (PSD) of air quality in areas cleaner than required by the NAAQS.

The NAAQS, developed and promulgated by the U.S. Environmental Protection Agency (EPA), establish the maximum limits of pollutants that are permitted in the outside ambient air. EPA requires that each state submit a plan (called a State Implementation Plan or SIP), including any laws and regulations necessary to enforce the plan, that shows how the air pollution concentrations will be reduced to levels at or below these standards (attainment). Once the pollution levels are within the standards, the SIP must also demonstrate how the state will maintain the air pollution concentrations at the reduced levels (maintenance).

A SIP is the key to the state's air quality programs. The Clean Air Act is specific concerning the elements required for an acceptable SIP. If a state does not prepare such a plan, or EPA does not approve a submitted plan, then EPA itself is empowered to take the necessary actions to attain and maintain the air quality standards—that is, it would have to promulgate and implement an air quality plan for that state. EPA is also, by law, required to impose sanctions in cases where there is no approved plan or the plan is not being implemented, the sanctions consisting of loss of federal funds for highways and other projects and/or more restrictive requirements for new industry. Generally, the plan is revised, as needed, based upon changes in the federal Clean Air Act and its requirements.

The basic approach to developing a SIP is to examine air quality across the state, delineate areas where air quality needs improvement, determine the degree of improvement necessary, inventory the sources contributing to the problem, develop a control strategy to reduce emissions from contributing sources enough to bring about attainment of the air quality standards, implement the strategy, and take the steps necessary to ensure that the air quality standards are not violated in the future.

The heart of the SIP is the control strategy. The control strategy describes the emission reduction measures to be used by the state to attain and maintain the air quality standards. There are three basic types of measures: stationary source control measures, mobile source control measures, and transportation source control measures. Stationary source control measures are directed at limiting emissions primarily from commercial/industrial facilities and operations and include the following: emission limits, control technology requirements, preconstruction permit programs for new industry and expansions, and source-specific control requirements. Stationary source control measures also include area source control measures which are directed at small businesses and consumer activities. Mobile source control measures are directed at tailpipe and other emissions primarily from motor vehicles and include the following:

Federal Motor Vehicle Emission Standards, fuel volatility limits, reformulated gasoline, emissions control system anti-tampering programs, and inspection and maintenance programs. Transportation source control measures limit the location and use of motor vehicles and include the following: carpools, special bus lanes, rapid transit systems, commuter park and ride lots, bicycle lanes, signal system improvements, and many others.

Federal guidance on states' approaches to the inclusion of control measures in the SIP has varied considerably over the years, ranging from very general in the early years of the Clean Air Act to very specific in more recent years. Many regulatory requirements were adopted in the 1970s when no detailed guidance existed. The legally binding federal mandate for these regulations is general, not specific, consisting of the Clean Air Act's broad-based directive to states to attain and maintain the air quality standards. However, in recent years, the Clean Air Act, along with EPA regulations and policy, has become much more specific, thereby removing much of the states' discretion to craft their own air quality control programs.

Generally, a SIP is revised, as needed, based upon changes in air quality or statutory requirements. For the most part the SIP has worked, and the standards have been attained for most pollutants in most areas. However, attainment of NAAQS for one pollutant--ozone--has proven problematic. While ozone is needed at the earth's outer atmospheric layer to shield out harmful rays from the sun, excess concentrations at the surface have an adverse effect on human health and welfare. Ozone is formed by a chemical reaction between volatile organic compounds (VOCs), nitrogen oxides (NO_x), and sunlight. When VOC and NO_x emissions from mobile sources and stationary sources are reduced, ozone is reduced.

Congress enacted the 1977 Amendments to the Clean Air Act in order to address unsuccessful SIPs and areas that had not attained the NAAQS (that is, nonattainment areas). Although SIP revisions submitted pursuant to the requirements of the 1977 amendments did achieve some progress in eliminating nonattainment areas, some areas remained.

In 1990 Congress once again enacted comprehensive amendments to the Act to address SIP requirements for nonattainment areas. The new Act established a process for evaluating the air quality in each region and identifying and classifying each nonattainment area according to the severity of its air pollution problem. Nonattainment areas are classified as marginal, moderate, serious, severe and extreme. Marginal areas are subject to the least stringent requirements and each subsequent classification (or class) is subject to successively more stringent control measures. Areas in a higher classification of nonattainment must meet the mandates of the lower classifications plus the more stringent requirements of their class. In addition to the general SIP-related sanctions, nonattainment areas have their own unique sanctions. If a particular area fails to attain the federal standard by the legislatively mandated attainment date, EPA is required to reassign it to the next higher classification level (denoting a worse air quality problem), thus subjecting the area to more stringent air pollution control requirements. The Clean Air

Act includes specific provisions requiring these sanctions to be issued by EPA if so warranted.

The new Act required EPA, based on the air quality data from each state, to propose geographic boundaries and pollution classification levels for all nonattainment areas to each state's governor. If states disagreed with EPA's proposals, they had the opportunity to propose different boundaries; however, EPA had the authority to make the final decision.

The process provided in the new Act yielded three nonattainment areas for Virginia. The classifications for Virginia's nonattainment areas were marginal for the Hampton Roads Nonattainment Area, moderate for the Richmond Nonattainment Area, and serious for the Northern Virginia Nonattainment Area.

Once the nonattainment areas were defined, each state was then obligated to submit a SIP demonstrating how it would attain the air quality standards in each nonattainment area. First, the new Act requires that certain specific control measures and other requirements be adopted and included in the SIP; a list of those that necessitated the adoption of state regulations is provided below. In addition, the state had to demonstrate that it would achieve a VOC emission reduction of 15%. Finally, the SIP had to include an attainment demonstration by photochemical modeling (including annual emission reductions of 3% from 1996 to 1999) in addition to the 15% emission reduction demonstration. In cases where the specific control measures shown below were inadequate to achieve the emission reductions or attain the air quality standard, the state was obligated to adopt other control measures as necessary to achieve this end.

ALL AREAS

- correct existing VOC regulatory program (controls on certain sources identified in EPA control technology guidelines)
- requirement for annual statements of emissions from industries
- permit program for new industry and expansions (with variable major source definition, variable offset ratio for addition of new pollution, and special requirements for expansions to existing industry in serious areas)
- procedures to determine if systems level highway plans and other federally financed projects are in conformity with air quality plans

MODERATE AND ABOVE AREAS

- requirement for controls for all major (100 tons per year) VOC sources
- requirement for vapor recovery controls for emissions from filling vehicles with gasoline (stage II)

- requirement for controls for all major (100 tons per year) NO_x sources
- case by case control technology determinations for all major VOC and NO_x sources not covered by a EPA control technology guideline

SERIOUS AND ABOVE AREAS

- requirement for controls for all major (50 tons per year) VOC sources
- requirement for controls for all major (50 tons per year) NO_x sources
- enhanced monitoring (source emissions) program
- correct existing motor vehicle emissions inspection and maintenance (I&M) program
- enhanced motor vehicle emissions I&M program
- clean fuel fleet vehicle program
- oxygenated fuels program

Since the initial classification of these three areas, Northern Virginia has remained a nonattainment area. Richmond and Hampton Roads were able to achieve the 1-hour ozone standard and were redesignated as maintenance areas. As a condition of being redesignated, each area established a plan that included specific strategies to maintain their air quality. No additional new requirements were necessary provided that an area did not measure ozone concentrations above allowable levels. In the event that an area did measure ozone concentrations above allowable levels, each maintenance plan included contingency measures. The contingency measures consisted of a scheduled series of additional steps to be taken in the event of ozone exceedances or violations. EPA redesignated Hampton Roads as a maintenance area and approved its maintenance plan and associated contingency measures on June 26, 1997 (62 FR 34408 at 40 CFR 52.2420(c)(117)).

From 1999 to 2001, however, the Hampton Roads area experienced four exceedances at the Tidewater Community College monitor in Suffolk, resulting in a violation of the 1-hour ozone standard. (More than three exceedances in a three-year period result in a violation.) Consequently, EPA Region III notified Virginia by letter dated October 29, 2001, that the Commonwealth is now obligated to implement the contingency measures of the 1-hour maintenance plan established for this area. Virginia now needs to strengthen the provisions of this contingency plan.

Since the initial regulatory promulgation of the volatile organic compounds emissions control areas in 1979, James City County, York County, Poquoson City, and Williamsburg City have been exempt from the emission standards for VOCs in 9 VAC 5

Chapter 40. These standards apply to existing sources conducting activities such as open burning, asphalt application, solvent metal cleaning, metal can coating, and graphic arts operations. Originally, these four jurisdictions were determined to be too rural to make a significant contribution to air pollution in the area. Two decades later, however, they have undergone significant development and are no longer rural. In light of the Hampton Roads area's violation of the 1-hour ozone standard, the exemption of these jurisdictions from the VOC emission standards must be now rescinded, and the contingency measures of the maintenance plan for the area must be revised to include a commitment and schedule to implement this course of action.

Potential Issues *

Please supply a statement delineating any potential issues that may need to be addressed as the regulation is developed.

The first issue will be to enlarge the regulatory scope of the Hampton Roads emissions control area for volatile organic compounds to include James City County, York County, Poquoson City, and Williamsburg City. The second issue will be to make any other changes that may be necessary to maintain regulatory consistency.

Alternatives *

Please describe the process by which the agency has considered, or will consider, less burdensome and less intrusive alternatives for achieving the need. Also describe, to the extent known, the specific alternatives to the proposal that have been considered and will be considered to meet the need, and the reasoning by which the agency has rejected any of the alternatives considered.

Alternatives to the proposed regulation amendments are being considered by the Department. The Department has tentatively determined that the first alternative is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the purpose of the regulatory action. The alternatives being considered by the Department, along with the reasoning by which the Department has rejected any of the alternatives being considered, are discussed below.

1. Amend the regulation to satisfy the provisions of the law and associated regulations and policies. This option is being selected because it meets the stated purpose of the regulatory action: to enlarge the scope of the Hampton Roads volatile organic compounds emissions control area in light of Virginia's obligation to implement contingency measures as a result of this area's violation of the 1-hour ozone standard.

2. Make alternative regulatory changes to those required by the provisions of the law and associated regulations and policies. This option is not being selected because Virginia's failure to strengthen and implement its contingency plan could jeopardize the Commonwealth's authority to make its own air quality policy decisions, could result in the EPA assuming control of Virginia's air quality plan, and could result in the levying of

sanctions on Virginia such as the loss of federal funds for highways or more restrictive requirements for new industry.

3. Take no action to amend the regulation. This option is not being selected because Virginia's failure to strengthen and implement its contingency plan could jeopardize the Commonwealth's authority to make its own air quality policy decisions, could result in the EPA assuming control of Virginia's air quality plan, and could result in the levying of sanctions on Virginia such as the loss of federal funds for highways or more restrictive requirements for new industry.

Public Participation *

Please indicate the nature of the comments the Department is soliciting pursuant to this notice and whether a public meeting is to be held to receive comments on this notice. If a public meeting is to be held, indicate where information on the public meeting (i.e. date, time, and place) may be found. Indicate whether it is the Department's intent to hold at least one public hearing on the proposed regulation after it is published in the Virginia Register.

The Department is soliciting comments on (i) the intended regulatory action, to include ideas to assist the Department in the development of the proposal, (ii) the impacts of the proposed regulation on farm and forest lands, (iii) the costs and benefits of the alternatives stated in this notice or other alternatives, and (iv) potential pollution prevention benefits that could be realized. All comments must be received by the Department by 4:30 p.m. on the day of the public meeting (see information below) in order to be considered. It is preferred that all comments be provided in writing to the Department, along with any supporting documents or exhibits; however, oral comments will be accepted at the meeting. Comments may be submitted by mail, facsimile transmission, e-mail, or by personal appearance at the meeting, but must be submitted to Kathleen Sands, Policy Analyst, Office of Air Regulatory Development, Department of Environmental Quality, P.O. Box 10009, Richmond, Virginia, 23240 (e-mail: krsands@deq.state.va.us) (fax number: 804-698-4510). Comments by facsimile transmission will be accepted only if followed by receipt of the signed original within one week. Comments by e-mail will be accepted only if the name, address and phone number of the commenter are included. All testimony, exhibits and documents received are a matter of public record. Only comments (i) related to the potential issues, alternatives, and costs and benefits (see supporting information below) as specified in this notice and (ii) provided in accordance with the procedures specified in this notice will be given consideration in the development of the proposed regulation amendments.

A public meeting will be held by the Department to receive comments on the intended action. Information on the date, time, and place of the meeting is published in the Calendar of Events section of the Virginia Register.

After publication in the Virginia Register of Regulations, the Department will hold at least one public hearing to provide opportunity for public comment on any regulation amendments drafted pursuant to this notice.

Ad Hoc Advisory Group *

Please indicate the extent to which the participatory approach will be used in the development of the proposed regulation. Indicate whether the Department is will be using an ad hoc advisory group in the development of the proposal.

The Department is soliciting comments on the advisability of forming an ad hoc advisory group, using a standing advisory committee, or consulting with groups or individuals registering interest in working with the Department to assist in the drafting and formation of any proposal. The primary function of any group, committee or individuals that may be used is to develop recommended regulation amendments for Department consideration through the collaborative approach of regulatory negotiation and consensus. Any comments relative to this issue must be submitted to the agency contact in writing by 4:30 p.m. the last day of the comment period.

Legal Requirements

Please identify the state and/or federal source of the legal requirements that necessitate promulgation of the contemplated regulation. The discussion of these requirements should include a description of their scope and the extent to which the requirements are mandatory or discretionary. Full citations for the legal requirements and, if available, web site addresses for locating the text of the cited legal provisions should be provided.

Federal Requirements

Federal Clean Air Act (CAA):

<http://www.epa.gov/ttn/oarpg/gener.html>

Code of Federal Regulations (CFR):

<http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html>

Federal Register (FR):

http://www.gpo.gov/su_docs/aces/aces140.html

40 CFR 51.230 specifies that each state implementation plan must show that the state has the legal authority to carry out the plan, including the authority to abate pollutant emissions on an emergency basis to prevent substantial endangerment to the health of persons.

Clean Air Act § 110(a) mandates that each state adopt and submit to EPA a plan which provides for the implementation, maintenance, and enforcement of each primary and secondary air quality standard within each air quality control region in the state. The state implementation plan shall be adopted only after reasonable public notice is given and public hearings are held. The plan shall include provisions to require sources of air pollution to install, maintain, and replace monitoring equipment as necessary and to report periodically on emissions-related data.

Clean Air Act § 182 (a)(3)(B) requires that all owners of stationary sources emitting volatile organic compounds (VOC) or nitrogen oxides (NO_x) within a marginal nonattainment area provide the state with an annual emissions statement that shows the actual emissions of VOC and NO_x from that source. The state may waive this reporting requirement for sources which emit less than 25 tons per year of VOC or NO_x, if the state provides an inventory of emissions from such class or category of sources, based on the use of acceptable emission factors or other methods acceptable to EPA.

40 CFR Part 51 sets out requirements for the preparation, adoption, and submittal of state implementation plans. These requirements mandate that any such plan shall include several provisions. Subpart K (Source Surveillance) specifies procedures for emissions reports and record-keeping, procedures for testing, inspection, enforcement, and complaints, transportation control measures, and procedures for continuous emissions monitoring.

40 CFR 51.230 specifies that each state implementation plan must show that the state has the legal authority to carry out the plan, including the authority to require owners or operators of stationary sources to install, maintain, and use emission monitoring devices and to make periodic reports to the state on the nature and amounts of emissions from such stationary sources.

In the Federal Register, EPA has issued detailed guidance that sets out its preliminary views on the implementation of the air quality planning requirements applicable to nonattainment areas. This guidance is titled the "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990" (or "General Preamble"). See 57 FR 13,498 (April 16, 1992) and 57 FR 18,070 (April 28, 1992). The General Preamble has been supplemented with further guidance on Title I requirements. See 57 FR 31,477 (July 16, 1992) (announcing the availability of draft guidance for lead nonattainment areas and serious PM₁₀ nonattainment areas); 57 FR 55,621 (Nov. 25, 1992) (guidance on NO_x RACT requirements in ozone nonattainment areas). For this subject, the guidance provides little more than a summary and reiteration of the provisions of the Act.

Clean Air Act § 110(a) mandates that each state adopt and submit to EPA a plan which provides for the implementation, maintenance, and enforcement of each primary and secondary air quality standard within each air quality control region in the state. The state implementation plan shall be adopted only after reasonable public notice is given and public hearings are held. The plan shall include provisions to establish enforceable emission limitations and other control measures as necessary to comply with the provisions of the CAA, including economic incentives such as fees, marketable permits, and auctions of emissions rights. The plan shall also include provisions to establish schedules for compliance.

40 CFR Part 51 sets out requirements for the preparation, adoption, and submittal of state implementation plans. These requirements mandate that any such plan shall include several provisions. Subpart N (Compliance Schedules) specifies legally enforceable

compliance schedules, final compliance schedule dates, and conditions for extensions beyond one year.

40 CFR 51.230 specifies that each state implementation plan must show that the state has the legal authority to carry out the plan, including the authority to adopt emission standards and limitations and any other measures necessary for the attainment and maintenance of the national ambient air quality standards.

State Requirements

Code of Virginia:

<http://leg1.state.va.us/000/cod/codec.htm>

Virginia Administrative Code (VAC):

<http://leg1.state.va.us/000/reg/toc.htm>

Code of Virginia § 10.1-1307 A provides that the board may, among other activities, develop a comprehensive program for the study, abatement, and control of all sources of air pollution in the Commonwealth.

Code of Virginia § 10.1-1308 provides that the board shall have the power to promulgate regulations abating, controlling, and prohibiting air pollution throughout or in any part of the Commonwealth in accordance with the provisions of the Administrative Process Act.

Family Impact Statement

Please provide a preliminary analysis of the potential impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; 4) increase or decrease disposable family income.

It is not anticipated that these regulation amendments will have a direct impact on families. However, there will be positive indirect impacts in that the regulation amendments will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health and welfare problems.

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